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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/777,603 | 02/06/2001 | Robert G. Roodman | 3576-010027 | 3170 |

7590 02/27/2004
Kent E. Baldauf
700 Koppers Building
436 Seventh Avenue
Pittsburgh, PA 15219-1818

EXAMINER

CINTINS, IVARS C

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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1724

DATE MAILED: 02/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|--|--------------------------------------|---|--|
| <p align="center">Office Action Summary</p> | Application No. 09/777,603 | Applicant(s) ROODMAN ET AL. <i>eb</i> | |
| | Examiner Ivars C. Cintins | Art Unit 1724 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-23, 25 and 32-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-23, 25 and 32-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 17, 18, 22, 32 and 33 are again rejected under 35 U.S.C. 102(b) as being anticipated by Harte et al. (U.S. Patent No. 4,789,475). The reference discloses removing impurities (i.e. heavy metals) from water by passing this water through a bed of activated charcoal (col. 3, line 3) having a carboxylic acid containing compound (i.e. EDTA or DMS) adsorbed thereon (see col. 3, lines 62, 63 and 65), in the recited amount (see col. 4, lines 23-25), and prepared by soaking the activated charcoal in a solution of the carboxylic acid containing compound (see col. 4, line 63); and therefore, this reference material will inherently exhibit the recited pH characteristic.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 19 is again rejected under 35 U.S.C. 103(a) as being unpatentable over Harte et al. in view of Brioni et al. (U.S. Patent No. 5,437,845). Harte et al. discloses the claimed invention with the exception of the recited source of the activated carbon. Brioni et al. teaches (see col. 1, lines 46-48) that it is known to produce activated charcoal from the materials recited in claim 19. It would have been obvious to one of ordinary skill in the art at the time the invention was made

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to produce the activated charcoal of Harte et al. from the recited materials, since Brioni et al. teaches that activated charcoal is typically produced in this manner.

Claims 20, 21, 23, 25, 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harte et al. in view of Lundquist (U.S. Patent No. 6,436,294). Harte et al. discloses the claimed invention with the exception of the recited carboxylic acid. Lundquist teaches that citric acid, EDTA, and lactic acid are all useful chelating agents for heavy metal ions (see col. 3, lines 21 and 23-27). It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the citric acid or lactic acid of Lundquist for the EDTA of Harte et al., since this secondary reference chelating agent is capable of sequestering heavy metal ions from water in substantially the same manner as the chelating agent of the primary reference (see col. 3, lines 1-2), to produce substantially the same results.

Applicant's arguments filed November 19, 2003 have been noted and carefully considered, but are not deemed to be persuasive of patentability. Applicant argues that Harte et al. does not anticipate any claims in this application because the filter bed in this reference includes charcoal, mercaptan, carboxylate chelating agents and a polymer; whereas the claims are limited to a composition containing only activated carbon, a carboxylic acid containing compound and optionally water. Applicant further argues that the mercaptans and polymer are a necessary component in the bed material disclosed by Harte (page 6, second paragraph, of the response). These arguments do not appear to be well founded. Initially, it is not clear why Applicant feels that a mercaptan is a necessary component in the bed material of Harte et al., since this reference does not appear to mention the use of any mercaptans. As to the presence of the polymer, Applicant should note that Harte et al. clearly teaches that this polymer is optional,

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and that the chelating chemicals may be adsorbed directly onto the activated charcoal in the concentrations described without the use of the polymer (see col. 4, lines 21-22; and especially col. 5, lines 9-11). Accordingly, since Harte et al. clearly teaches the use of an activated carbon composition consisting of a carboxylic acid material adsorbed onto the surface of this activated carbon, this reference is still deemed to anticipate claims 17, 18, 22, 32 and 33.

Applicant also argues that no combination of Harte or Lundquist suggests preventing pH excursions as recited in the present invention. Again, this argument has been noted and carefully considered, but is not deemed to be persuasive of patentability. It is pointed out that since Harte et al. contacts the same stream as does Applicant (i.e. an aqueous system comprising impurities) with the same material as used by Applicant (i.e. activated carbon with a carboxylic acid containing compound adsorbed on its surface), the results obtained by this reference process must inherently be the same as those obtained by Applicant. The mere recitation of a newly discovered function or property (i.e. pH stability) that is inherently possessed by things in the prior art does not cause a claim drawn to those things to distinguish over the prior art. *General Electric. Co. v Jewel Incandescent Lamp Co.*, 67 USPQ 155 (1945); *In re Oelrich*, 212 USPQ 323 (C.C.P.A. 1981); *In re Best*, 195 USPQ 430 (C.C.P.A. 1977); *In re Swinehart*, 169 USPQ 226 (C.C.P.A. 1971).

Applicant has also presented a declaration, under 37 C.F.R. § 1.132, in an attempt to demonstrate commercial success for the claimed invention. Initially, it should be noted that this declaration can have no effect on the 35 U.S.C. 102(b) rejection applied against claims 17, 18, 22, 32 and 33. As to the remaining claims, this declaration is not deemed to be persuasive of patentability because it fails to demonstrate a nexus between the claimed invention and the

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evidence of commercial success. In other words, Applicant has not demonstrated that the commercial success alleged is directly derived from the invention claimed, and is not the result of heavy promotion or advertising, shift in advertising, consumption by purchasers normally tied to Applicant or Assignee, or other business events extraneous to the merits of the claimed invention.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to I. Cintins whose telephone number is (571) 272-1155. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Blaine Copenheaver, can be reached at (571) 272-1156.

The centralized facsimile number for the USPTO is (703) 872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ivars C. Cintins
Primary Examiner
Art Unit 1724

I. Cintins
February 19, 2004